

DOW

DOW CHEMICAL U.S.A.

MICHIGAN DIVISION
MIDLAND, MICHIGAN 48640

August 3, 1976

Mr. Edmund J. Laubusch
The Chlorine Institute, Inc.
342 Madison Avenue
New York, NY 10017

Dear Ed:

Please find attached completed questionnaires on asbestos handling techniques as requested by the Asbestos Abatement Subcommittee of the Institute.

If there are any questions regarding our response, please let us know.

Very truly yours,



R. J. Moolenaar
Environmental Sciences Research
1702 Building
(517-636-0655)

Attach.

cc: D. C. Nuechterlein, 2020

jlp

BCC: R. Axe, Pittsburg
R. Daniel, Freeport
S. Daniels, 1702
C. Halphen, Plaquemine
J. Wait, 851

AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY



ST0177010



ASBESTOS ABATEMENT SUBCOMMITTEE SURVEY (6/79)

Plant Code No. 34 Rated Chlorine Cap. WT/Day Cell Type(s) Discharge

A. ASBESTOS RECEIVING & STORAGE

Container ✓ Presized Bags?
Type/checkbox:

 Plastic Bags?
 Dissolvable Bags?
 Other:
specify

Storage: Isolated from Diaphragm
Depositing Area?

✓ yes; no

Describe briefly:
Locked in remote
room

B. DIAPHRAGM DEPOSITING AREA

Ventilation: Local exhaust vent system? ✓ yes; no

Bag collector on vent system? ✓ yes; no

If yes describe how dust is disposed.

bag & landfill

If no describe other dust collection method employed.

Bag Disposal:

If not dissolvable type, describe.

Within enclosed exhaust system? yes; X no.

Monitoring :

a) for EPA compliance: Achieved? ✓ yes

How monitored?

Frequency?

b) for OSHA compliance (present status)

TWA

15-Min. Ceiling

5/7/72 Std. : ≤ 5.0 fibers/CC	$\geq 5 \mu$ <u>✓</u> yes; no <u> </u>	≤ 10 fibers/CC	$\geq 5 \mu$ <u>✓</u> yes; <u> </u>
7/1/78 Std. : ≤ 3.0 fibers/CC	<u>✓</u> yes; no <u> </u>	≤ 10.0 fibers/CC	<u>✓</u> yes; <u> </u>
10/9/75 Plan : ≤ 0.5 fibers/CC	<u>✓</u> yes; no <u> </u>	≤ 5.0 fibers/CC	<u>✓</u> yes; <u> </u>

Anticipated compliance w. 7/1/78 standard?

✓ yes;

Anticipated difficulty w. 10/9/75 proposal?

✓ yes;

How monitored? Personal - area monitor

Frequency? 2 times/yr

c) OSHA Citation? yes; X no. If yes, why?

Fines?

Over...

c. SPENT DIAPHRAGM HANDLING

Spent Diaphragms : _____ #/day (dry basis) ; Concentrated? ☒ yes; _____ no

Disposal : Container Type? (e.g. dumpster) ^{How? (filtered, decanted, recycled, etc.)}

How? (State approved landfill, etc.):

Abatement System : ☒ yes; _____ no. If yes, describe. coarse filter on effluent

Monitoring : Describe, if different from Item B.

D. EMPLOYEE PROTECTION

Respirators : Type? (specify): Cannister, Dust respirator

Use policy? (describe): any time handling loose asbestos

Disposal? (describe): Landfill

Protective Clothing : Kind? Disposable, paper jacket Company Provided? yes

Use policy? whenever handling dry asbestos

Disposal? Landfill

Amenities : Locker Rooms - communal w. other workers? ☒ yes; _____ no

Lunch Rooms - communal w. other workers? _____ yes; ☒ no

Medical Surveillance : X-Rays? ☒ yes; _____ no. Frequency? Annual

Who & how many monitored? (Indicate job characterization) All personnel working in cell service area

Pulmonary Function? ☒ yes; _____ no. Frequency & Type? Annual

Who & how many monitored? all personnel

ASBESTOS ABATEMENT SYSTEMS (If yes, describe).

Effluent? ☒ yes; _____ no; _____ planned

H₂ Condensate? _____ yes; ☒ no; _____ planned

Cl₂ Condensate? _____ yes; ☒ no; _____ planned

Caustic Effluent? _____ yes; ☒ no; _____ planned

Brine System? _____ yes; ☒ no; _____ planned

Products? _____ yes; ☒ no; _____ planned



ASBESTOS ABATEMENT SUBCOMMITTEE SURVEY (6/78)

Plant Code No. 30 Rated Chlorine Cap. NT/Day Cell Type(s) Diaphragm

A. ASBESTOS RECEIVING & STORAGE

Container Yes Preshred Bags? (sometimes divided)
Type/ohsek: Plastic Bags?
Dissolvable Bags?
Other: specify

Storage: Isolated from Diaphragm
Depositing Area? yes; no

Describe briefly:
Located in different
lddy, locked in partition

B. DIAPHRAGM DEPOSITING AREA

Ventilation: Local exhaust vent system? yes; X no

Bag collector on vent system? yes; X no

If yes describe how dust is disposed.

If no describe other dust collection method employed.

Bag Disposal: If not dissolvable type, describe.

Within enclosed exhaust system? yes; X no. using a filter
into plastic bag
- sealed

Monitoring : a) for EPA compliance: Achieved? Yes

How monitored?

Frequency?

b) for OSHA compliance (present status)

TWA

15-Min. Ceiling

6/7/72 Std. : ≤ 5.0 fibers/CC	$\geq 5 \mu$ <u>X</u> yes; no <u> </u>	≤ 10 fibers/CC	$\geq 5 \mu$ <u>X</u> yes; <u> </u>
7/1/78 Std. : ≤ 2.0 fibers/CC	<u>X</u> yes; no <u> </u>	≤ 10.0 fibers/CC	<u>X</u> yes; <u> </u>
1/9/75 Plan : ≤ 0.5 fibers/CC	<u>X</u> yes; no <u> </u>	≤ 5.0 fibers/CC	<u>X</u> yes; <u> </u>

Anticipated compliance w. 7/1/78 standard? X yes;

Anticipated difficulty w. 10/9/75 proposal? yes; X no

How monitored? Personal air sample + area sample

Frequency? 1/yr

a) OSHA Citation? yes; X no. If yes, why?

Fines?

Over...

2. SPENT DIAPHRAGM HANDLING

Spent Diaphragms : _____ 1/day (dry basis) ; Concentrated? X yes; _____ no

Disposal : Container Type? (e.g. dumpster): How? filtered, decanted, recycled, etc.)
How? (State approved landfill, etc.): _____

Abatement System : _____ yes; X no. If yes, describe.

Monitoring : Describe, if different from Item B.

D. EMPLOYEE PROTECTION

Respirators : Type? (specify): 3M 8710
 Use policy? (describe): Used when dumping or opening bags of dry asbestos
 Disposal? (describe): Sealed in plastic bags & buried

Protective Clothing : Kind? Cotton & synthetic overalls and white paper suits Company Provided? yes
 Use policy? Paper when dumping & working with dry asbestos
 Disposal? Sealed in plastic bags

Amenities : Locker Rooms - communal w. other workers? X yes; _____ no
 Lunch Rooms - communal w. other workers? _____ yes; X no

Medical Surveillance : X-Rays? X yes; _____ no. Frequency? 1/yr
 Who & how many monitored?
 (Indicate job characterization)
Entire crew

Pulmonary Function? X yes; _____ no. Frequency & Type? Annual in multiple in 1 yr
 Who & how many monitored?
Entire crew

3. ASBESTOS ABATEMENT SYSTEMS (If yes, describe).

Effluent? _____ yes; X no; _____ planned

H₂ Condensate? _____ yes; X no; _____ planned

Cl₂ Condensate? _____ yes; X no; _____ planned

Caustic Effluent? X yes; _____ no; _____ planned

Brine System? _____ yes; X no; _____ planned

Products? X yes; _____ no; _____ planned



ASBESTOS ABATEMENT SUBCOMMITTEE SURVEY (6/78)

Plant Code No. 4 Rated Chlorine Cap. NT/Day Cell Type(s) Diaphragm

1. ASBESTOS RECEIVING & STORAGE

Container yes Presized Bags?
Type/check:

 Plastic Bags?

 Dissolvable Bags?

x Other: Plasticized Paper
specify

Storage: Isolated from Diaphragm
Depositing Area?
x yes; no

Describe briefly:
Stored in special isolate
storage area.

1. DIAPHRAGM DEPOSITING AREA

Ventilation: Local exhaust vent system? x yes; no

Bag collector on vent system? yes; x no

If yes describe how dust is disposed.

If no describe other dust collection method employed.
Vent is water scrubbed

Bag Disposal: If not dissolvable type, describe.

Within enclosed exhaust system? yes; x no.

Monitoring : a) for EPA compliance: Achieved? x

How monitored? Collected on membrane filter & microscopic
Frequency? Annual count.

b) for OSHA compliance (present status)

TWA

15-Min. Ceiling

9/7/72 Std. : ≤ 5.0 fibers/CC $> 5 \mu$ x yes; no ≤ 10 fibers/CC $\geq 5 \mu$ x yes; no

7/1/76 Std. : ≤ 3.0 fibers/CC x yes; no ≤ 10.0 fibers/CC x yes; no

1/9/75 Plan : ≤ 0.5 fibers/CC yes; no x ≤ 5.0 fibers/CC yes; x no

Anticipated compliance w. 7/1/76 standard? x yes; no

Anticipated difficulty w. 10/9/75 proposal? x yes; no

How monitored? microscopic count of fibers on membrane filter

Frequency? Semiannually

a) OSHA Citation? yes; x no. If yes, why?

Fines?

Over...

C. SPENT DIAPHRAGM HANDLING

Spent
Diaphragms : _____ #/day (dry basis) ; Concentrated? _____ yes; ☒ no

Disposal : Container Type? (e.g. dumpster): Polyethylene bags

How? (filtered, decanted, recycled, etc.)
How? (State approved landfill, etc.): State approved landfill

Abatement
System : _____ yes; ☒ no. If yes, describe.

Monitoring : Describe, if different from Item B.

D. EMPLOYEE PROTECTION

Respirators : Type? (specify): NIOSH approved dust respirators.

Use policy? (describe): Required in all areas with potential
for asbestos exposure.

Disposal? (describe): Deposited in plastic bags for landfill

Protective : Kind? Disposable coverall in high potential area-washable clothing in low potential areas. Company Provided? ☒ yes
Clothing Use policy? Single use for disposable coveralls-daily laundering
of washable clothing.
Disposal? Deposited in plastic bags for landfill.

Amenities : Locker Rooms - communal w. other workers? ☒ yes; _____ no
Lunch Rooms - communal w. other workers? ☒ yes; _____ no

Medical
Surveillance : X-Rays? ☒ yes; _____ no. Frequency? Annual

Who & how many monitored? X-rays to all personnel annually
(Indicate job characterization)

Pulmonary
Function? ☒ yes; _____ no. Frequency & Type? Annual-FEV₁
FVC & FEV₁/FVC

Who & how many monitored? All personnel annually

E. ASBESTOS ABATEMENT SYSTEMS (If yes, describe).

Effluent? _____ yes; ☒ no; _____ planned

H₂ Condensate? _____ yes; ☒ no; _____ planned

Cl₂ Condensate? _____ yes; ☒ no; _____ planned

Caustic Effluent? _____ yes; _____ no; ☒ planned

Brine System? _____ yes; ☒ no; _____ planned

Products? _____ yes; ☒ no; _____ planned

ST0177616



ASBESTOS ABATEMENT SUBCOMMITTEE SURVEY (6/78)

Plant Code No. 24 Rated Chlorine Cap. NT/Day Cell Type(s)

ASBESTOS RECEIVING & STORAGE

Container Presized Bags?
Type/check:
✓ Plastic Bags?
 Dissolvable Bags?
 Other:
 specify

Storage: Isolated from Diaphragm
Depositing Area?
✓ yes; no

Describe briefly:

Remote dedicated
storage

DIAPHRAGM DEPOSITING AREA

Ventilation: Local exhaust vent system? ✓ yes; no
Bag collector on vent system? yes; ✓ no

If yes describe how dust is disposed.

If no describe other dust collection method employed.

Bag Disposal: If not dissolvable type, describe.
Within enclosed exhaust system? yes; ✓ no.

Monitoring : a) for EPA compliance: Achieved? Yes
How monitored? Mic. count
Frequency? Annual (min.)
b) for OSHA compliance (present status)

TWA

15-Min. Ceiling

7/72 Std. : ≤ 5.0 fibers/CC	$> 5 \mu$ <u>✓</u> yes; no <u> </u>	≤ 10 fibers/CC	$> 5 \mu$ <u>✓</u> yes; no <u> </u>
7/76 Std. : ≤ 2.0 fibers/CC	<u>✓</u> yes; no <u> </u>	≤ 10.0 fibers/CC	<u>✓</u> yes; no <u> </u>
7/75 Plan : ≤ 0.5 fibers/CC	<u> </u> yes; no <u>✓</u>	≤ 5.0 fibers/CC	<u> </u> yes; <u>✓</u> no

Anticipated compliance w. 7/76 standard? ✓ yes; no

Anticipated difficulty w. 10/9/75 proposal? yes; ✓ no

How monitored? Mic. count

Frequency?

c) OSHA Citation? yes; ✓ no. If yes, why?

Fines? No

Over...

SPENT DIAPHRAGM HANDLING

Spent
Diaphragms : _____ #/day (dry basis) ; Concentrated? ☒ yes; _____ no

Disposal : Container Type? (e.g. dumpster): _____
How? (filtered, discarded, recycled, etc.)
How? (State approved landfill, etc.): _____

Abatement
System : ☒ yes; _____ no. If yes, describe.

Monitoring : Describe, if different from Item B.

D. EMPLOYEE PROTECTION

Respirators : Type? (specify): Dust
Use policy? (describe): Any time handling loose asbestos
Disposal? (describe): Landfill

Protective
Clothing : Kind? Disposable _____ Company Provided? Yes
Use policy? Any time handling loose asbestos
Disposal? Landfill

Amenities : Locker Rooms - communal w. other workers? ☒ yes; _____ no
Lunch Rooms - communal w. other workers? ☒ yes; _____ no

Medical
Surveillance : X-Rays? ☒ yes; _____ no. Frequency? Annual
Who & how many monitored? All
(Indicate job characterization)

Pulmonary
Function? ☒ yes; All no. Frequency & Type?
Who & how many monitored? All

ASBESTOS ABATEMENT SYSTEMS (If yes, describe).

Effluent? ☒ yes; _____ no; _____ planned

H₂ Condensate? ☒ yes; _____ no; _____ planned

Cl₂ Condensate? ☒ yes; _____ no; _____ planned

Caustic Effluent? ☒ yes; _____ no; _____ planned

Brine System? ☒ yes; _____ no; _____ planned

Products? _____ yes; _____ no; ☒ planned

510177618